

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

- 1-42. (cancelled)
43. (New) A device for minimally invasive medical treatment, comprising:  
a tubular member having a proximal end and a distal end;  
a cryo therapy apparatus connected to the distal end of the tubular member;  
and an optical sensor near the distal end of the tubular member to monitor  
temperatures created by use of the cryo therapy apparatus.
44. (New) The device of claim 43, further comprising a temperature quantification  
device in communication with the optical sensor.
45. (New) The device of claim 43, wherein the optical sensor is coupled to the cryo  
therapy apparatus in an array of sensing members about the apparatus perimeter.
46. (New) The device of claim 43, wherein the optical sensor is positioned to observe  
ice or ice ball formation created by the cryo therapy apparatus.
47. (New) The device of claim 43, wherein the optical sensor is coupled to a  
retractable member.
48. (New) The device of claim 43, further comprising a marker band to assist in  
locating the optical sensor.

49. (New) The device of claim 43, wherein the optical sensor is disposed at least partially within a lumen defined in the tubular member.

50. (New) The device of claim 43, wherein the cryo therapy apparatus comprises an inner chamber and an outer chamber.

51. (New) The device of claim 43, wherein the optical sensor comprises an emitter and a detector.

52. (New) A device for minimally invasive medical treatment, comprising:  
a tubular member having a proximal end and a distal end;  
a cryo therapy apparatus connected to the distal end of the tubular member;  
and an optical imaging apparatus near the distal end of the tubular member to monitor temperatures resulting from use of the cryo therapy apparatus.

53. (New) The device of claim 52, wherein the optical imaging apparatus comprises an emitter and a detector.

54. (New) The device of claim 52, wherein the cryo therapy apparatus comprises an inner chamber and an outer chamber.

55. (New) A method of monitoring the temperature of an area of interest during a cryoplasty procedure, comprising:  
providing a temperature monitoring device including a tubular member having a proximal end and a distal end, a cryo therapy apparatus connected to the distal end of the tubular member, and an optical sensor near the distal end of the tubular member;  
advancing the temperature monitoring device to an area of interest;  
cooling at least a portion of the area of interest with the cryo therapy apparatus; and

measuring temperature at a location within the area of interest with the temperature monitoring device.

56. (New) The method of claim 55, wherein the optical sensor is coupled to the cryo therapy apparatus in an array of sensing members about the apparatus perimeter.

57. (New) The method of claim 55, further comprising observing ice or ice ball formation created by the cryo therapy apparatus.

58. (New) The method of claim 55, wherein the temperature is measured while performing cryo balloon therapy.